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1/17/87

START

HANFORD MONITORING WELL SAMPLE PURGE WATER DISPOSAL

WESTINGHOUSE HANFORD COMPANY

DECEMBER 1987

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0019122

BACKGROUND

- o DURING THE OCTOBER INTERFACE MEETING BETWEEN DOE-RL AND ECOLOGY, ECOLOGY REQUESTED THAT DISCHARGES OF CONTAMINATED GROUNDWATER TO THE SOIL IN THE 183-H AREA BE DISCONTINUED
 - DISCHARGES AT THE 183-H AREA WERE DISCONTINUED AS REQUESTED
- o ECOLOGY ALSO REQUESTED THAT THE ISSUE OF SITE-WIDE DISCHARGES OF CONTAMINATED GROUNDWATER BE EVALUATED BY HANFORD AND PRESENTED TO ECOLOGY
 - THIS MEETING WILL DISCUSS HANFORD'S EVALUATION OF THE SITE-WIDE DISCHARGES OF CONTAMINATED PURGE WATER

OBJECTIVE

THIS PRESENTATION WILL:

- o PROVIDE THE DETAILED PLANS FOR INTERIM 183-H SAMPLE PURGE WATER HANDLING MEASURES**
- o PROVIDE OVERVIEW OF THE INTERIM SITE-WIDE SAMPLE PURGE WATER HANDLING PLANS**
- o PROVIDE OVERVIEW OF THE PLANS FOR EVALUATING A LONG TERM SOLUTION**

SCOPE

DECEMBER - JANUARY:

183-H PURGE WATER FROM WELL SAMPLING

JANUARY - 2ND HALF OF 1988:

SITE-WIDE CONTAMINATED PURGE WATER FROM GROUNDWATER WELL SAMPLING

BEYOND:

**SITE-WIDE CONTAMINATED PURGE WATER, WELL DEVELOPMENT, AND AQUIFER
TEST WATER**

183-H INTERIM MEASURES

- o DO NOT RESUME DISCHARGING CONTAMINATED MONITORING WELL SAMPLE PURGE WATER TO THE GROUND WITHOUT TREATMENT**
- o PROCEED WITH DECEMBER QUARTERLY SAMPLING**
- o COLLECT THE SAMPLE PURGE WATER IN A TANKER OR DRUMS DURING SAMPLING OPERATIONS**
- o TRANSFER WATER TO A RAIL TANK CAR AT THE 1314N LOADOUT FACILITY**
- o TRANSFER TO THE HIGH LEVEL WASTE DOUBLE-SHELL TANK SYSTEM VIA THE 204-AR UNLOADING FACILITY AFTER pH ADJUSTMENT**

*~ 1400 gal per month
4/23/84*

183-H INTERIM MEASURES (CONTINUED)

- o EVAPORATE WASTE IN THE 242-A EVAPORATOR WITH THE CONDENSATE DISPOSED OF IN 216-A-37-1 CRIB AND THE RESIDUAL SENT TO DOUBLE-SHELL TANK STORAGE FOR EVENTUAL DISPOSAL IN GROUT**
- o MORE ECONOMICAL TREATMENT AND DISPOSAL METHODS WILL CONTINUE TO BE EVALUATED AND ECOLOGY WILL BE INFORMED OF ANY SUBSTANTIAL CHANGES IN OPERATION**
- o INTERIM MEASURE WILL BE IN AFFECT UNTIL A LONG TERM SOLUTION IS AVAILABLE (TENTATIVELY 6 - 12 MONTHS)**

SITE-WIDE INTERIM MEASURES

- o INITIATE MEASURES TO DISCONTINUE DISCHARGE TO THE SOIL OF CONTAMINATED SAMPLE PURGE WATER ON A SITE-WIDE BASIS IN JANUARY 1988**
 - INITIAL SITE-WIDE INTERIM MEASURE APPLY TO SAMPLE PURGE WATER ONLY, AND NOT WELL DEVELOPMENT OR AQUIFER TEST WATER**
 - THE INITIAL MEASURES IMPLEMENTED AT STARTUP WILL BE CONTAINMENT AND TRANSFER TO THE DOUBLE-SHELL TANK SYSTEM**
 - THE 242-A EVAPORATOR WILL BE USED FOR TREATMENT**
 - VOLATILE COMPONENTS WILL BE DISCHARGED TO THE AIR WITHIN HAZARDOUS WASTE REGULATORY LIMITS**
 - CONDENSATE WILL BE DISCHARGED TO THE 216-A-37-1 CRIB WITHIN HAZARDOUS WASTE REGULATORY LIMITS**
 - MORE COST-EFFECTIVE MEASURES WILL CONTINUE TO BE EVALUATED AND ECOLOGY WILL BE NOTIFIED IF THE TREATMENT AND DISPOSAL MEASURES CHANGE**

SITE-WIDE INTERIM MEASURES (CONTINUED)

- o **CRITERIA FOR COLLECTION OF CONTAMINATED SAMPLE PURGE WATER
WILL BE BASED ON PAST SAMPLING DATA**
 - **PREVIOUSLY IDENTIFIED CONTAMINATION**
 - **SUSPICION OF STRONG POTENTIAL FOR CONTAMINATION**
- o **COLLECTION LIMITS WILL BE BASED ON THE LONG TERM SOLUTION'S
TECHNOLOGY AND WILL GENERALLY BE AVAILABLE AT THE JANUARY
MEETING**
 - **BAT**
 - **TRITIUM EXCLUDED**
- o **INTERIM SITE-WIDE MEASURE WILL CONTINUE UNTIL A LONG TERM
TREATMENT MEASURE IS AVAILABLE (TENTATIVELY 6 - 12 MONTHS)**

LONG-TERM TREATMENT MEASURES

- o PACIFIC NORTHWEST LABORATORIES AND ICF NORTHWEST HAVE BEEN CONTRACTED TO EVALUATE AVAILABLE TECHNOLOGY FOR TREATMENT OF THE CONTAMINATED SAMPLE PURGE WATER AND CONTAMINATED WELL DEVELOPMENT AND AQUIFER TEST WATER**
- o IMPLEMENTATION IS TENTATIVELY SCHEDULED TO BE FROM 6 TO 12 MONTHS**
- o A PRESENTATION ON THE PLANS AND AN IMPLEMENTATION SCHEDULE WILL BE MADE AT THE END OF JANUARY 1988**

OTHER 183-H AREA OBSERVATIONS**● PERSONNEL SAFETY:**

- LATEX OR SURGICAL GLOVES WILL BE WORN BY SAMPLING PERSONNEL TO PREVENT SKIN CONTACT AND ENSURE INTEGRITY OF SAMPLES.
- SAFETY SHOES ARE NOT REQUIRED SINCE NO HEAVY LIFTING IS DONE DURING SAMPLING.
- NOISE EXPOSURE MEASUREMENTS WERE CONDUCTED BY HEHF IN MAY 1987. SINCE IT WAS DETERMINED THAT ALL NOISE LEVELS WERE BELOW APPLICABLE LIMITS, NO HEARING PROTECTION IS REQUIRED.

● WELL HEAD SECURITY:

- LOCKS HAVE BEEN INSTALLED ON ALL WELL CAPS IN THE 183-H AREA.

● WELL PAD MAINTENANCE:

- NEW CONCRETE PADS WERE POURED DURING THE LAST WEEK OF NOVEMBER 1987.

OTHER 183-H AREA OBSERVATIONS - CONTINUED

- **USE OF HYDROSTAR PUMP:**
 - **MANY OF THE OBSERVATIONS ASSOCIATED WITH THE HYDROSTAR PUMP RESULTED FROM THE FAILURE OF THE SAMPLING PERSONNEL TO USE THE SAMPLING HOSES SPECIFIED IN THE CURRENT PROCEDURE.**
 - * **PNL WILL HAVE SAMPLING PERSONNEL REVIEW THE PROCEDURE.**
 - * **USE OF THE PROPER SAMPLING HOSES WILL BE REVIEWED WITH SAMPLING PERSONNEL.**
 - **SURGING AND VOLATIZATION DOES NOT OCCUR WITH THE PROPER USE OF SAMPLING HOSES.**
 - **DEDICATED SAMPLING AND PURGING HOSES ARE NOT NECESSARY. PURGING PROVIDES SUFFICIENT CLEANSING BETWEEN SAMPLES.**